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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/700,144	11/03/2003	Mark A. Neil	10011.002300 (P1240)	3845
31894	7590	06/02/2005	EXAMINER	
OKAMOTO & BENEDICTO, LLP P.O. BOX 641330 SAN JOSE, CA 95164			GURZO, PAUL M	
			ART UNIT	PAPER NUMBER
			2881	

DATE MAILED: 06/02/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/700,144	NEIL ET AL.	
	Examiner	Art Unit	
	Paul Gurzo	2881	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 10 May 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-7, 11, 22 and 23 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-7, 11, 22 and 23 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|-----------------------------------------------------------------------------------------|-----------------------------------------------------------------------------|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date. _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-7, 11, and 22-23 stand rejected under 35 U.S.C. 103(a) as being unpatentable over Lo et al. (6,566,897).

Regarding claims 1 and 11, 897 teaches a method and apparatus for automated focusing in an electron imaging system comprising monitoring an energy filter cut-off voltage during the electron imaging of the substrate (22) (col. 7, lines 31-39) and adjusting the stage bias voltage of the electron imaging system to maintain a focus of the electron image (col. 7, lines 13-30 and Fig. 1). 897 does not explicitly state a negative correspondence between the two voltages, but they do teach that the energy filter voltage is between 0 and 15eV and the stage bias voltage can be negative (col. 7, lines 22-39). Therefore, if two voltages are opposite and can be varied, it is obvious that they can have the same absolute value, therefore leading to a negative correspondence. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to use a negative correspondence to ensure a highly uniform image will be produced.

Regarding claims 2, 3, 22, and 23, 897 teaches varying the two voltages as applied above and it is obvious that the two can be varied in an opposite manner because they teach varying the voltage (col. 7, line 13-39) to ensure a uniform, focused image.

Regarding claims 4-6, 897 depicts, in Fig. 1 and 2, control electronics (64) that will adjust the strength of the source (18), adjusting the voltage to the objective lens (34) (col. 7, lines 31-33), and adjusting the strength of the extraction field (col. 7, lines 35-39).

Regarding claim 7, 897 teaches a method that provides an improved contrast of the resulting image by adjusting the voltages, etc. in the manner stated above (col. 3, lines 40-54). Therefore, it is obvious that the image is rough to start, and through the desired voltage applications, etc. the image becomes finely focused.

Response to Arguments

Applicant's arguments filed 5/10/05 have been fully considered but they are not persuasive. Applicant argues that the prior art teaches improving the consistency and distinctiveness of contrast and does not teach an automated focusing. The method steps of the prior art are identical to the claimed method in the instant application. Applicant does not disagree with the correctness of the rejection pertaining to the steps taught in the prior art. Applicant's silence about this point is viewed as their admission that the steps are identical. Applicant's argument that focusing is not taught is misguided. Even if the beam is already focused, maintaining the consistency and distinctiveness of contrast with act to keep the system focused. Throughout the system in the prior art the beam is focused. A step of pre-focusing will not negate the maintenance of beam focus throughout operation. In addition, the improving contrast will act to maintain focus. Improving the consistency and distinctiveness of contrast will reduce any differences. Since the beam is already focused, improving the consistency and distinctiveness of contrast will maintain the focus through the reduction of differences in the electron image. Therefore, the system will remain focused.

Conclusion

THIS ACTION IS MADE FINAL. Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Gurzo whose telephone number is (571) 272-2472. The examiner can normally be reached on M-Fri. 7:30 - 6:00.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John Lee can be reached at (571) 272-2477. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9306 for After Final communications.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR

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system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

PMG



JOHN R. LEE
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800